

REMARKS

In the aforesaid Office Action, claims 14, 15 and 27-30 were rejected under 35 USC § 103(a) as being unpatentable over Chen et al. (5,849,846) in view of Sun et al. (5,728,748), claim 31 was rejected under 35 USC § 103(a) as being unpatentable over Chen et al. in view of Sun et al. and further in view of Avellanet (5,733,496), claim 32 was rejected under 35 USC § 103(a) as being unpatentable over Chen et al. in view of Sun et al. and further in view of Avellanet and Lafont et al. (5,957,975), and claim 33 was rejected under 35 USC § 103(a) as being unpatentable over Lafont et al. in view of Sun et al. Applicants note with appreciation the indication that claims 1-12, 21-24 and 26 are allowed, and claims 16-20 would be allowable if rewritten in independent form including all limitations of the base and any intervening claims. Claims 1-3, 5, 7-12, 14-24 and 26-35 are pending (new claims 34 and 35 being added by this amendment).

The Examiner rejected claims 14, 15 and 27-30 under 35 USC § 103(a) as being unpatentable over Chen et al. in view of Sun et al., and claim 31 under 35 USC § 103(a) as being unpatentable over Chen et al. in view of Sun et al. and further in view of Avellanet, and claim 32 under 35 USC § 103(a) as being unpatentable over Chen et al. in view of Sun et al. and further in view of Avellanet and Lafont et al., stating that as Chen teaches that the burst pressure is increased, then the second rupture pressure is not significantly less than the first rupture pressure. Applicants have amended claims 14, 27, 31 and 32 to set forth that the second rupture pressure is equal to or not greater than the first rupture pressure.

Chen et al. in view of Sun et al. does not disclose or suggest providing a balloon catheter having a balloon with a first rupture pressure, and applying an electron beam to the balloon catheter in an evacuated or inert gas-filled container, so that the electron-beamed balloon has a second rupture pressure equal to or not greater than the first rupture pressure (and not

significantly less than the first rupture pressure, as in claim 27). Instead, Chen et al. requires irradiating the catheter balloon to increase the burst pressure and fatigue strength of the balloon (see col. 9, lines 20-25).

Moreover, regarding claim 31 calling for a balloon formed of polyether block amide, Avellanet appears to disclose irradiating a catheter shaft, and not a balloon. The Examiner states in the Response to Arguments section that if it is known to irradiate a catheter shaft made of PEBAX then it would have been obvious to irradiate a balloon formed of the same material. However, Avellanet discloses irradiating the catheter PEBAX tubing to increase the push and torque of the catheter by increasing the stiffness of the PEBAX tubing. In contrast, in catheter balloons, as discussed in the last paragraph of the Background section of Applicants' specification, it is undesirable to increase the stiffness of a catheter inflatable balloon. Therefore, because Avellanet is directed to irradiating a catheter shaft and not a catheter balloon, and the catheter shaft is irradiated to increase the stiffness thereof, Chen et al. with Sun et al. in view of Avellanet does not render obvious irradiating an inflatable balloon formed of PEBAX.

The Examiner rejected claim 33 under 35 USC § 103(a) as being unpatentable over Lafont et al. in view of Sun et al., stating that Lafont et al. teaches a method of sterilizing a balloon catheter wherein a stent is mounted on an outer surface of the balloon and the entire assembly is sterilized with e-beam radiation, and Sun et al. teaches a method of sterilizing a medical implant wherein the implant is placed within an air-tight container and the container evacuated and repressurized with inert gas.

However, the combination of Lafont et al. in view of Sun et al. does not disclose or suggest a method in which the penetration of the electron beam is reduced by the metal of a metallic stent. Rather, Lafont et al. specifically requires a biodegradable polymeric stent.


Support for the amendment to claim 33 can be found in paragraph [8] of the Detailed Description.

Moreover, regarding claim 34, the combination of Lafont et al. in view of Sun et al. does not disclose or suggest applying an electron beam to the balloon catheter without forming reactive radicals upon exposure to the electron beam. Rather, Sun et al. discloses first creating free radicals by irradiating the material and then forming cross-links between said free radicals using heat (see claim 9, and col. 3, line 49 to col. 4, line 13). Support for claim 34 can be found in paragraph [3] of the Summary section of Applicants' specification.

In light of the above amendments and remarks, applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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